

Amendment to the Claims

The claims are amended as follows:

Listing of the Claims

1. (Currently Amended) An audio system for use in a vehicle, comprising:
a plurality of audio sources connected to an amplifier, the amplifier comprising a respective balance setting for each audio source and configured to provide a respective amplified audio signal to each of a plurality of speakers, where the audio sources are operable to generate a plurality of audio output signals that are supplied to the amplifier;
and
a control unit connected with the amplifier, and configured to adjust for adjusting a balance setting associated with a plurality of speakers the respective amplified audio signals for each speaker based on each of the respective audio sources that generates the audio output signal, where the control unit includes a user interface for independently setting the each respective balance setting of each respective audio source, where the control unit is further configured to adjust adjust the balance setting settings based upon a user selected preference for each audio source.
2. (Currently Amended) The audio system of claim 1 where the balance setting is configured further adjusted to output an acoustic driver information message receivable from the navigation system to a speaker positioned near a driver of the vehicle.
3. (Currently Amended) The audio system of claim 2 where the amplifier is configured to mute audio output signals from other audio sources ~~are muted~~ from the speaker positioned nearest the driver while in response to receipt of the acoustic driver information message receivable from the navigation system is being played on the speaker positioned nearest the driver.
4. (Currently Amended) The audio system of claim 2 where the amplifier is configured to generate audio output signals from other audio sources ~~play~~ uninterrupted by the acoustic driver information message receivable from the navigation system in at least one speaker not positioned nearest the driver.

5. (Currently Amended) The audio system of claim 4 where the amplifier is configured to mute the acoustic driver information message receivable from the navigation system is muted from the audio output signals sent to the speakers not positioned nearest the driver.
6. (Currently Amended) The audio system of claim 1 where the control unit includes an audio manager module operable to control the balance setting of the amplifier connected to the speakers based on the respective balance setting for each audio source.
7. (Currently Amended) The audio system of claim 1 where the control unit includes a means for adjustment operable to allow a user to independently adjust the balance setting of each of the respective ~~the~~ audio sources.
8. (Currently Amended) The audio system of claim 1 where the control unit includes a user interface module operable to receive ~~allow~~ a user to ~~adjust~~ adjustment of the respective balance setting of the user selected audio ~~sources~~ source ~~using a touch-screen display for each respective audio source~~.
9. (Currently Amended) The audio system of claim 8 where the user interface module is configured to generate ~~generates~~ a balance setting graphical user interface on the a touch-screen display that allows a user to adjust the balance setting.
10. (Currently Amended) The audio system of claim 1 where the control unit is configured to store the respective balance setting for each respective audio source is stored in the control unit.
11. (Currently Amended) The audio system of claim 1 where the user selected audio source comprises at least one audio source ~~may be selected~~ from a group of audio sources including a navigation system, a tuner, a remote terminal, a compact disc player, a digital video disc player, an MP3 player, a radio data service tuner, a

television, a satellite radio, an Internet radio, a cassette player, and a text-to-speech system.

12. (Currently Amended) A computer program product for use with an audio system in a vehicle, comprising:

computer readable program code ~~for controlling~~ to control a plurality of audio sources, ~~capable of generating a plurality of where each respective audio source~~ includes an audio output signal[[s]]; and

computer readable program code ~~to receive for allowing a user to set a a~~ respective audio source balance setting for a plurality of speakers for each respective audio source ~~with from~~ a user interface.

13. (Currently Amended) The computer program product of claim 12, further comprising computer readable program code ~~for to~~ audibly reproducing reproduce the audio output signals on the speakers based upon the respective balance setting of each of the audio sources.

14. (Original) The computer program product of claim 12 where at least one audio output signal comprises an acoustic driver information message generated from a respective audio source.

15. (Currently Amended) The computer program product of claim 14 where the ~~respective~~ at least one of the plurality of audio sources comprises a navigation system including a navigation system balance setting.

16. (Currently Amended) The computer program product of claim 14, further comprising:

computer readable program code to generate where the balance setting generates the acoustic driver information message receivable from a navigation system in a speaker nearest a driver of the vehicle based on the navigation system balance setting; and

computer readable program code to reduce the audio output signals from audio sources other than the navigation system in the speaker nearest the driver in response to reproduction of the acoustic driver information message.

17. (Canceled)

18. (Currently Amended) The computer program product of claim 15 where the navigation system balance setting mutes audio output signals from audio sources other than the navigation system in the speaker nearest the driver of the vehicle.

19. (Original) The computer program product of claim 12 where the plurality of speakers comprise a front and rear set of loudspeakers.

20. (Currently Amended) The computer program product of claim 12, further comprising computer readable storage medium including a program code ~~for generating to generate~~ a graphical user interface on a display ~~capable of allowing the user to adjust to display~~ the respective audio source balance setting for each respective audio source.

21. (Currently Amended) The computer program product of claim ~~20~~ 42 where the audio sources ~~may be selected from a group of audio sources including~~ include at least one of a navigation system, a tuner, a remote terminal, a compact disc player, a digital video disc player, an MP3 player, a radio data service tuner, a television, a satellite radio, an Internet radio, a cassette player, and a text-to-speech system.

22. (Currently Amended) The computer program product of claim 12, further comprising computer readable storage medium including a program code ~~for setting to set~~ the balance setting for each audio source based on a respective passenger category.

23. (Currently Amended) The computer program product of claim 22 where the passenger category ~~may includes~~ at least one of the group of a driver category, a co-driver category, at least one child category, or at least one adult passenger category.

24. (Currently Amended) An audio system for a vehicle, comprising:
 - a plurality of audio sources configured to generate ~~capable of generating~~ a plurality of audio output signals;
 - an amplifier connected to the audio sources, and configured to receive ~~for receiving~~ the audio output signals generated by the audio sources;
 - a plurality of speakers connected to the amplifier; and
 - a head unit connected to the amplifier operable to control a balance setting of the speakers for each respective audio source ~~that is generating~~ configured to generate the audio output signals, where the head unit is operable to generate a user interface configured to receive setting an audio source the balance setting for ~~of~~ each respective audio source, and further configured to store each respective audio source balance setting for each respective audio source.
25. (Currently Amended) The audio system of claim 24 where the amplifier includes a balance setting circuit and the amplifier is configured to be ~~that is~~ controlled by the head unit.
26. (Canceled)
27. (Currently Amended) The audio system of claim 24 where the user interface further includes ~~is generated on~~ a touch-screen display configured to receive an audio source balance setting for each respective audio source.
28. (Currently Amended) The audio system of claim 24 where the head unit includes an audio manager module operable to control the amplifier based upon the audio source balance setting for each respective audio source.
29. (Currently Amended) The audio system of claim 24 where one audio source comprises a navigation system ~~for generating~~ configured to generate an acoustic driver information message, and the audio source balance setting associated with the navigation system is configured to ~~is set the balance setting of the speakers~~ to audibly

reproduce the acoustic driver information message only in a respective speaker positioned near a driver of the vehicle, and the amplifier is further configured to reduce the output of other audio sources in the respective speaker positioned nearest the driver of the vehicle in response to generation of the acoustic driver information message.

30. (Currently Amended) The audio system of claim 29 where another ~~other~~ audio sources source continues to audibly reproduce in a predetermined number of other speakers uninterrupted by the acoustic driver information message.

31. (Currently Amended) The audio system of claim 24 where the at least one audio source ~~may be~~ is selected from a group of audio sources including a navigation system, a tuner, a remote terminal, a compact disc player, a digital video disc player, an MP3 player, a radio data service tuner, a television, a satellite radio, an Internet radio, a cassette player, and a text-to-speech system.

32. (Currently Amended) A method of controlling balance settings for a plurality of audio sources in an audio system for a vehicle, ~~comprises comprising:~~
generating a plurality of audio output signals from a plurality of audio sources;
transmitting the audio output signals from the audio sources to an amplifier;
receiving selected balance settings for selected audio sources with a head unit connected to the amplifier;
storing the selected balance settings received from the head unit as the respective audio source balance settings for the selected audio sources; and
~~adjusting a balance setting of each respective audio source with a head unit connected to the amplifier; and~~
reproducing the an audio output signal[[s]] on at least two ~~a speaker~~ speakers based upon the a stored selected balance setting of each respective for one of the selected audio sources.

33. (Currently Amended) The method of claim 32 where the head unit includes a graphical user interface configured to receive a selected balance setting of a selected audio source ~~each audio source is from~~ adjusted by an occupant of the vehicle with a

graphical user interface, where each audio source can be associated with a respective audio source balance setting.

34. (Currently Amended) The method of claim 32 ~~33~~ where the graphical user interface includes a vertical and horizontal scroll bar for adjusting the balance setting.

35. (Currently Amended) The method of claim 33 where ~~the graphical user interface is generated on a touch-screen display in the vehicle~~ is configured to generate the graphical user interface.

36. (Original) The method of claim 32 where ~~a respective~~ one of the audio output signals comprises an acoustic driver information message generated by a navigation system.

37. (Currently Amended) The method of claim 36 where ~~the~~ an audio source balance setting associated with the navigation system generates the ~~is positioned such that the acoustic driver information message is reproduced~~ on a speaker chosen by the driver.

38. (Currently Amended) The method of claim 32 where ~~the~~ at least one audio sources ~~source may be~~ is selected from a group of audio sources including a navigation system, a tuner, a remote terminal, a compact disc player, a digital video disc player, an MP3 player, a radio data service tuner, a television, a satellite radio, an Internet radio, a cassette player and a text-to-speech system.

39. (Currently Amended) An audio system for use in a vehicle comprising:
a plurality of audio sources connected to an amplifier operably coupled to a plurality of speakers;
a control unit connected to the amplifier;
a passenger category selection module located on the control unit and configured to receive a user selected passenger category from a plurality of passenger categories for selecting a passenger category, and each passenger category includes a respective balance setting for each audio source; and

a user interface module located on the control unit, and configured to adjust for adjusting a balance setting of the plurality a plurality of speakers for the selected passenger category based on a respective audio source that generates an audio output signal and the user selected passenger category.

40. (Currently Amended) The audio system of claim 39 further comprising audio-an audio manager module configured to control ~~for controlling~~ the amplifier to audibly reproduce the audio output signal in a predetermined number of speakers based upon the balance setting for each of the audio sources.

41. (Currently Amended) The audio system of claim 39 where the passenger category selection module is operable to generate a balance setting graphical user interface configured to receive a balance setting for each respective audio source for each respective passenger category. ~~that is used to adjust the balance settings of the audio sources.~~

42. (Currently Amended) The audio system of claim 39 where the ~~passenger category may be selected from a group of~~ passenger categories include including a driver category, a co-driver category, a backseat passenger category and a children category.

43. (Currently Amended) A method of controlling balance settings in an audio system for a vehicle, comprising ~~the steps of:~~

receiving a selected ~~selecting a~~ passenger category selected from a plurality of passenger categories, where the passenger category includes a respective balance setting for each of a plurality of audio sources;

receiving an adjustment for ~~adjusting a~~ the balance setting of at least one audio source for the selected passenger category; and

reproducing audio output signals based on the balance setting for each audio source.

44. (Currently Amended) The method of claim 43 where the audio system comprises the passenger category is selected through a graphical user interface generated by a passenger category selection module located on a the control unit, the method further comprising

generating a graphical user interface on the passenger category selection module to display the plurality of passenger categories and to receive the selected passenger category.

45. (Currently Amended) The method of claim 43 where the plurality of passenger category may be categories comprises at least one of selected from a group of passenger categories including a driver category, a co-driver category, a backseat passenger category and a children category.

46. (Currently Amended) In a vehicle navigation system having a graphical user interface including a display and selection device, a method of providing and selecting from a stored menu on the display and selection device, the method comprising:

retrieving a set of menu entries associated with the stored menu, where each of the menu entries represents at least one balance setting associated with each one of a plurality of audio sources for a selected passenger category;

displaying at least one of the balance settings associated with each audio source for the selected passenger category on the display and selection device;

receiving a menu entry selection signal by indicative of the selection device pointing at a selected menu entry associated with the balance setting from the set of menu entries; and

in response to the menu entry selection signal, adjusting the balance setting associated with the audio source as indicated by the menu entry selection signal.

47. (Canceled)

48. (Canceled)

49. (Currently Amended) The method of claim 46 further comprising ~~the step of~~ reproducing audio output signals on a plurality of speakers based on using the respective balance setting provided for each audio source.
50. (New) The method of claim 46 further comprising:
displaying a plurality of passenger categories;
receiving a menu entry selection signal indicative of the selection of one of the displayed passenger categories;
setting the selected passenger category to the one of the plurality of passenger categories indicated by the menu entry selection signal.
51. (New) The method of claim 46 where the display and selection device comprise a touch screen display.
52. (New) The method of claim 51 further comprises:
generating a horizontal scroll bar on the touch screen display;
generating a vertical scroll bar on the touch screen display;
receiving a location of the respective horizontal and vertical scroll bars on the touch screen displays;
adjusting the balance setting of each audio source based on the received location of the horizontal and vertical scroll bars.
53. (New) The method of claim 46, where the selected passenger category is selected from a plurality of passenger categories; and the plurality of passenger categories includes a driver category, a co-driver category, a backseat passenger category, and a child category.
54. (New) The computer program product of claim 15, further comprising:
computer readable storage medium including a program code to generate an indication of the acoustic driver information message;
computer readable storage medium including a program code to mute audio output signals from audio sources other than the navigation system in the speaker

nearest the driver of the vehicle based on the indication of the generation of the acoustic driver information message.

55. (New) The computer program product of claim 22, further comprising:
computer readable storage medium including a program code to select a selected passenger category from a plurality of passenger categories.

56. (New) The computer program product of claim 54, further comprising:
computer readable storage medium including a pc to audibly reproduce audio signals on the speakers based on the respective balance settings of each of the audio sources for the selected passenger category.